8 July 1964 GN:bb:323 997-112

MEMORANDUM

STATINTL

To:

From:

Subject:

Survey of Recording Microdensitometers

STATINTL CC:

A literature survey of recording microdensitometers for general use has just been completed. This memo describes the results of this survey.

STATINTL

On March 12, 1964, a letter requesting information pertaining to recording microdensitometers was sent to forty-three companies which were possible suppliers of recording microdensitometers. Thirty-nine companies responded to our request; with seventeen indicating that they manufactured or distributed an instrument which was suitable for measuring density on a microscopic scale. Eight of the instruments for which information was obtained were designed specifically for spectrographic work and are not applicable for general use.

Table I summarizes the results of the survey. The first column is a list of company names and addresses in alphabetical order. An affirmative reply in column 2 indicates that the company markets a microdensitometer. The date of their reply is also included. The name of the instrument is given in the third column. If no model name exists, the word "own" indicates that the company manufactures the instrument. If the company markets the instrument for another firm, the manufacturer is listed in the third column. The fourth column indicates where tests can be conducted. The term "customer facilities" indicates that one of their customers would have to be contacted to arrange for tests. The final column consists of general remarks on the design considerations.

A review of Table 1 shows that eight companies supply instruments which are multi-purpose microdensitometers for which enough information is available to tabulate their characteristics. Table 2 is a summary of the available data covering

Next 1 Page(s) In Document Exempt

Approved For Release 2001/04/02 : CIA-RDP78B04747A000200010047-8 8 July 1964 Page 4

GN:bb:323

the general features of these instruments. In some cases several different models of microdensitometers are listed for one company. Blanks indicate that information was not supplied in response to the survey.

## Recommendations

STATINTL

It is recommended that a number of companies be visited to obtain further information about the microdensitometers listed in Table 2. A set of standard tests which have been designed at the (see memo: Microdensitometer Evaluation Tests, MM:bb:282) should be conducted at the manufacturer or distributor. The information gathered from the tests should make a classification of microdensitometers possible.

STATINTL STATINTL Six companies should be visited. does not have an instrument available for testing, and the instrument does not appear to have the capabilities of the other instruments. The six companies which should be visited are listed below with a brief discussion of special features which should be investigated during the visit.

STATINTL

STATINTL

has developed a magnetic tape read-out system for high speed accurate scanning.

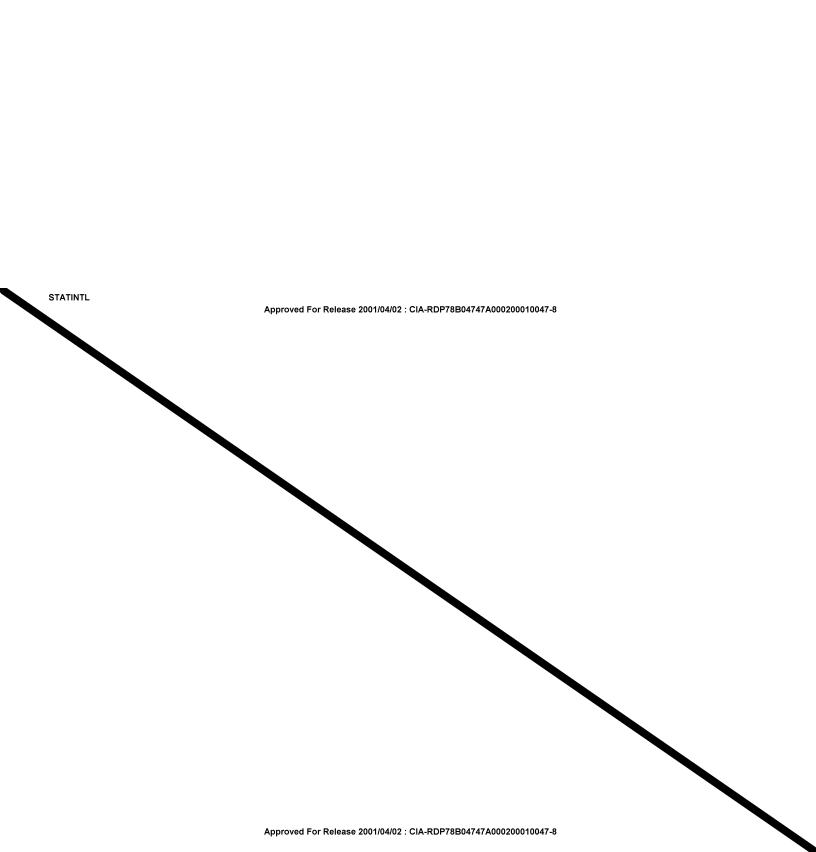
STATINTL

STATINTL STATINTL

has constructed an instrument jointly with has been responsible for developing a system (Micro-Spot) for scanning with very small apertures, and for

STATINTL this reason a separate trip should be planned.

STATINTL has developed three different microdensitometers varying in capabilities and cost. They have a micro-image scanner and a reflection microscope for use with their microdensitometer.



Approved For Release 2001/04/02 : CIA-RDP78B04747A000200010047-8964 Page 6 STATINTL STATINTL uses a servo-system which keeps the film in constant focus. Flare light is reduced by making the illuminating numerical aperture less STATINTL than the measuring numerical aperture. STATINTL has developed a null type instrument which has the advantage of not being sensitive to fluctuations in the light source intensity. A STATINTL dichroic mirror in the system allows for viewing while scanning. markets a microdensitometer STATINTL STATINTL The instrument is a low cost instrument made by with some degree of versatility.

STATINTL